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APR 1 8 2001

TECH CENTER 1600/2900

RAW SEQUENCE LISTING

SEOUENCE LISTING

DATE: 04/06/2001

PATENT APPLICATION: US/09/543,679A

TIME: 11:11:23

Input Set : D:\SeqLst-03-21-01.txt

Output Set: N:\CRF3\04062001\I543679A.raw

ENTERED

```
3 (1) GENERAL INFORMATION:
C-->
             (i) APPLICANT: NYCE, Jonathan W.
W-->
      5
             (ii) TITLE OF INVENTION: LOW ADENOSINE ANTI-SENSE OLIGONUCLEOTIDE,
                                       COMPOSITIONS, KIT & METHOD FOR TREATMENT
      6
      7
                                       OF AIRWAY DISORDERS ASSOCIATED WITH
      8
                                       BRONCHOCONSTRICTION, LUNG INFLAMMATION,
      9
W-->
                                      ALLERGY(IES) & SURFACTANT DEPLETION
     10
           (iii) NUMBER OF SEQUENCES: 3111
     11
            (iv) CORRESPONDENCE ADDRESS:
     12
                   (A) ADDRESSEE: EPIGENESIS PHARMACEUTICALS, INC.
     13
                   (B) STREET: 7 Clarke Drive
     14
                   (C) CITY: Cranbury
     15
                   (D) STATE: NJ
     16
                   (E) COUNTRY: USA
     17
                   (F) ZIP: 08512
     18
             (V) COMPUTER READABLE FORM:
     19
                   (A) MEDIUM TYPE: CD-R
     20
                   (B) COMPUTER: IBM Compatible
     21
                   (C) OPERATING SYSTEM: DOS
     22
                   (D) SOFTWARE: N/A
     23
            (vi) CURRENT APPLICATION DATA:
C--> 24
                   (A) APPLICATION NUMBER: US/09/543,679A
C--> 25
                   (B) FILING DATE: 13-Apr-2000
     26
                  (C) CLASSIFICATION: UNKNOWN
     27
           (vii) PRIOR APPLICATION DATA:
     28
                   (A) APPLICATION NUMBER: 60/127,958
     29
                   (B) FILING DATE: 1998-08-03
     30
          (viii) ATTORNEY/AGENT INFORMATION:
     31
                  (A) NAME: Amzel, Viviana
     32
                  (B) REGISTRATION NUMBER: 30,930
     33
                  (C) REFERENCE/DOCKET NUMBER: EPI-0067191b
     34
            (ix) TELECOMMUNICATION INFORMATION:
     35
                  (A) TELEPHONE: 609-409-3035
     36
                  (B) TELEFAX: 413-254-9245
     37
                  (C) TELEX:
     39 (2) INFORMATION FOR SEQ ID NO: 1:
     40
             (i) SEQUENCE CHARACTERISTICS:
     41
                  (A) LENGTH: 21 base pairs
     42
                  (B) TYPE: nucleic acid
     43
                  (C) STRANDEDNESS: single
     44
                  (D) TOPOLOGY: linear
     45
            (ii) MOLECULE TYPE: cDNA
     46
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
     47 GATGGAGGC GGCATGGCGG G
                                                                                 21
```

49 (2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

```
RAW SEQUENCE LISTING
                                                          DATE: 04/06/2001
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51
              (A) LENGTH: 21 base pairs
52
              (B) TYPE: nucleic acid
53
              (C) STRANDEDNESS: single
54
              (D) TOPOLOGY: linear
55
        (ii) MOLECULE TYPE: cDNA
56
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
                                                                            21
57 GTAGCAGGCG GGGATGGGGG C
59 (2) INFORMATION FOR SEQ ID NO: 3:
        (i) SEQUENCE CHARACTERISTICS:
60
61
              (A) LENGTH: 18 base pairs
62
              (B) TYPE: nucleic acid
63
              (C) STRANDEDNESS: single
64
              (D) TOPOLOGY: linear
65
       (ii) MOLECULE TYPE: cDNA
66
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                            18
67 GTTGTTGGGC ATCTTGCC
69 (2) INFORMATION FOR SEQ ID NO: 4:
70
        (i) SEQUENCE CHARACTERISTICS:
71
              (A) LENGTH: 18 base pairs
              (B) TYPE: nucleic acid
72
73
              (C) STRANDEDNESS: single
74
              (D) TOPOLOGY: linear
75
       (ii) MOLECULE TYPE: cDNA
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
77 GTACTTGCGG ATCTAGGC
                                                                            18
79 (2) INFORMATION FOR SEQ ID NO: 5:
80
        (i) SEQUENCE CHARACTERISTICS:
81
              (A) LENGTH: 18 base pairs
82
              (B) TYPE: nucleic acid
83
             (C) STRANDEDNESS: single
84
             (D) TOPOLOGY: linear
85
       (ii) MOLECULE TYPE: cDNA
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
86
87 GTGGGCCTAG CTCTCGCC
                                                                            18
89 (2) INFORMATION FOR SEQ ID NO: 6:
90
        (i) SEQUENCE CHARACTERISTICS:
91
              (A) LENGTH: 18 base pairs
92
             (B) TYPE: nucleic acid
93
             (C) STRANDEDNESS: single
94
             (D) TOPOLOGY: linear
95
       (ii) MOLECULE TYPE: cDNA
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
                                                                            18
97 GTCGGGGTAC CTGTCGGC
99 (2) INFORMATION FOR SEQ ID NO: 7:
100
         (i) SEQUENCE CHARACTERISTICS:
101
              (A) LENGTH: 21 base pairs
102
              (B) TYPE: nucleic acid
103
              (C) STRANDEDNESS: single
104
              (D) TOPOLOGY: linear
```

RAW SEQUENCE LISTING DATE: 04/06/2001 PATENT APPLICATION: US/09/543,679A TIME: 11:11:23 Input Set : D:\SeqLst-03-21-01.txt Output Set: N:\CRF3\04062001\I543679A.raw 105 (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 106 107 CTCGTCGCCG TCGCCGGCGG G 21 109 (2) INFORMATION FOR SEQ ID NO: 8: (i) SEQUENCE CHARACTERISTICS: 110 111 (A) LENGTH: 20 base pairs 112 (B) TYPE: nucleic acid 113 (C) STRANDEDNESS: single 114 (D) TOPOLOGY: linear 115 (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 117 GGGTGGTGCT ATTGTCGGGC 20 119 (2) INFORMATION FOR SEQ ID NO: 9: 120 (i) SEQUENCE CHARACTERISTICS: 121 (A) LENGTH: 15 base pairs 122 (B) TYPE: nucleic acid 123 (C) STRANDEDNESS: single 124 (D) TOPOLOGY: linear 125 (ii) MOLECULE TYPE: cDNA 126 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9: 127 GGCCCAGGGC CAGCC 15 129 (2) INFORMATION FOR SEQ ID NO: 10: 130 (i) SEQUENCE CHARACTERISTICS: 131 (A) LENGTH: 21 base pairs 132 (B) TYPE: nucleic acid 133 (C) STRANDEDNESS: single 134 (D) TOPOLOGY: linear (ii) MOLECULE TYPE: cDNA 135 136 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10: 137 GGCCGGGCCA GCCGGGCCCG G 21 139 (2) INFORMATION FOR SEQ ID NO: 11: (i) SEQUENCE CHARACTERISTICS: 141 (A) LENGTH: 50 base pairs 142 (B) TYPE: nucleic acid 143 (C) STRANDEDNESS: single 144 (D) TOPOLOGY: linear 145 (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11: 147 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTGGGC 50 149 (2) INFORMATION FOR SEQ ID NO: 12: 150 (i) SEQUENCE CHARACTERISTICS: 151 (A) LENGTH: 49 base pairs 152 (B) TYPE: nucleic acid 153 (C) STRANDEDNESS: single 154 (D) TOPOLOGY: linear 155 (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12: 157 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTGGGC 49

159 (2) INFORMATION FOR SEQ ID NO: 13:

RAW SEQUENCE LISTING DATE: 04/06/2001 PATENT APPLICATION: US/09/543,679A TIME: 11:11:23

Input Set : D:\SeqLst-03-21-01.txt

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| 160 | (i) SEQUENCE CHARACTERISTICS: | |
|------------|--|-----|
| 161 | • • | |
| 162 | , , | |
| 163 | • • • | |
| 164 | (D) TOPOLOGY: linear | |
| 165 | | |
| 166 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13: | |
| | GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCACA GGCTGGGC | 48 |
| | (2) INFORMATION FOR SEQ ID NO: 14: | |
| 170 | | |
| 171 | , , , , , , , , , , , , , , , , , , , | |
| 172 | · · | |
| 173 | ` ' | |
| 174 | | |
| | (ii) MOLECULE TYPE: cDNA | |
| 176 | | |
| | GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG GCTGGGC | 47 |
| | (2) INFORMATION FOR SEQ ID NO: 15: | |
| 180 | ` ' ~ | |
| 181 | | |
| 182 | • • | |
| 183 | · · | |
| 184 | | |
| | (ii) MOLECULE TYPE: cDNA | |
| 186 | , | |
| | CCTGGAAAGC TGAGATGGAG GGCGGCATGG CGGGCACAGG CTGGGC | 46 |
| | (2) INFORMATION FOR SEQ ID NO: 16: | |
| 190 | | |
| 191 | | |
| 192 | | |
| 193 | , , | |
| 194 | ` ' | |
| | (ii) MOLECULE TYPE: cDNA | |
| 196 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16: | |
| | CTGGAAAGCT GAGATGGAGG GCGCATGGC GGGCACAGGC TGGGC | 45 |
| | (2) INFORMATION FOR SEQ ID NO: 17: | |
| 200 | (i) SEQUENCE CHARACTERISTICS: | |
| 201 | (A) LENGTH: 44 base pairs | |
| 202 | (B) TYPE: nucleic acid | |
| 203 204 | (C) STRANDEDNESS: single | |
| 204 | (D) TOPOLOGY: linear | |
| | (ii) MOLECULE TYPE: cDNA | |
| 206 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17: | 4.4 |
| | TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACAGGCT GGGC | 44 |
| 209 210 | (2) INFORMATION FOR SEQ ID NO: 18: (i) SEQUENCE CHARACTERISTICS: | |
| 211 | (1) SEQUENCE CHARACTERISTICS: (A) LENGTH: 43 base pairs | |
| 211 | (A) LENGTH: 45 base pairs (B) TYPE: nucleic acid | |
| 213 | (C) STRANDEDNESS: single | |
| Z I J | (C) SIRANDEDNESS. SINGTE | |

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Output Set: N:\CRF3\04062001\1543679A.raw

| 214 | (D) TOPOLOGY: linear | |
|-------|--|----|
| 215 | (ii) MOLECULE TYPE: cDNA | |
| 216 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18: | |
| 217 | GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACAGGCTG GGC | 43 |
| 219 | (2) INFORMATION FOR SEQ ID NO: 19: | |
| 220 | (i) SEQUENCE CHARACTERISTICS: | |
| 221 | (A) LENGTH: 42 base pairs | |
| 222 | (B) TYPE: nucleic acid | |
| 223 | (C) STRANDEDNESS: single | |
| 224 | (D) TOPOLOGY: linear | |
| 225 | (ii) MOLECULE TYPE: cDNA | |
| 226 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19: | |
| 227 | GAAAGCTGAG ATGGAGGCCG GCATGGCGGG CACAGGCTGG GC | 42 |
| 229 | (2) INFORMATION FOR SEQ ID NO: 20: | |
| 230 | (i) SEQUENCE CHARACTERISTICS: | |
| 231 | (A) LENGTH: 41 base pairs | |
| 232 | (B) TYPE: nucleic acid | |
| 233 | (C) STRANDEDNESS: single | |
| 234 | (D) TOPOLOGY: lînear | |
| 235 | (ii) MOLECULE TYPE: cDNA | |
| 236 | ` ' ~ | |
| | AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTGGG C | 41 |
| | (2) INFORMATION FOR SEQ ID NO: 21: | |
| 240 | · · - | |
| 241 | · · · · · · · · · · · · · · · · · · · | |
| 242 | · · | |
| 243 | • • | |
| 244 | · | |
| 245 | | |
| 246 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21: | |
| | AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTGGGC | 40 |
| | (2) INFORMATION FOR SEQ ID NO: 22: | |
| 250 | (i) SEQUENCE CHARACTERISTICS: | |
| 251 | (A) LENGTH: 39 base pairs | |
| 252 | (B) TYPE: nucleic acid | |
| 253 | | |
| 254 | • • | |
| 255 | | |
| 256 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22: | 20 |
| | AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTGGGC | 39 |
| 260 | (2) INFORMATION FOR SEQ ID NO: 23: | |
| 261 | (i) SEQUENCE CHARACTERISTICS: | |
| 262 | (A) LENGTH: 38 base pairs(B) TYPE: nucleic acid | |
| 263 | (C) STRANDEDNESS: single | |
| 264 | (D) TOPOLOGY: linear | |
| 265 | (ii) MOLECULE TYPE: cDNA | |
| 266 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23: | |
| | GCTGAGATGG AGGGCGGCAT GGCGGGCACA GGCTGGGC | 38 |
| ~ 0 , | Jordania nodocoden Jocobonen Jociobo | 50 |